Showcasing the work of Professor Arumugam Manthiram and his team at the University of Texas at Austin, US.

Printed microelectrodes for scalable, high-areal-capacity lithium–sulfur batteries

We demonstrate a rapid, top-down approach for printing aperiodic carbon nanotube electrodes at multiple size scales. Utilization of high-energy density sulfur as an active material facilitates miniaturization and enables our microelectrodes to produce >5 mAh cm\(^{-2}\) with good cycle life, meeting industry benchmarks for powering MEMS and microelectronic devices. We further demonstrate the facile scalability of our electrodes, and thus their potential utility as large-scale energy-storage platforms for electric vehicles or grid storage.

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